Lincoln Highway
Three Mile Segment South of Intersection of
Business I-80 and ALT 93
Wendover Vicinity
Elko County
Nevada

HAER NEV 4-WEN.V,

## **PHOTOGRAPHS**

# WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Historic American Engineering Record National Park Service Department of the Interior San Francisco, California

#### HISTORIC AMERICAN ENGINEERING RECORD

HAER NEV 4-WEN.V,

## LINCOLN HIGHWAY

### HAER No. NV-28

Location:

The Highway commences at a point 1.5 miles south

of the intersection of Business Route 80 and U.S. Highway Alternate 93 in West Wendover, Nevada

and continues in a southerly direction for

approximately 3.3 miles

Quad:

Wendover, Nevada

UTMS:

11/746980/4511900

11/744200/4506030

Date of Construction: 1928-1930 (Periodic modifications through 1958)

Present Owner:

Bureau of Land Management, Elko District

Present Use:

Abandoned

Significance:

This segment of the Lincoln Highway was one to the last two pieces of that highway to be completed in United States and was the final link in the route to make the Lincoln Way a true coast to coast highway. Moreover, this segment is intimately associated with western interstate battles concerning highway routes during the early years of Federal aid to states for road construction in the 1910's and

1920's.

Historian:

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April 1999

#### I. HISTORY

The small segment of the Lincoln Highway that is the subject of this study is part of both a longer highway system and a much larger drama played out in western politics during the early 20th-century. The history of this portion of highway dates to 1912 and 1913 as the "motorizing" of United States gained momentum. During 1912 automotive industry leaders and others became interested in developing coast to coast highways that would connect the Atlantic and Pacific shores. By the early 1910s many pioneer motorists attempted to travel from coast to coast and found innumerable problems along the way. Difficulties ranged from a lack of clear directions and signs to impassable roads of dirt and mud. These conditions and experiences led to the existence of dozens of organizations to support the construction and improvement of highways in the United States. These private organizations mirrored public opinion in support of additional highways. Among the organizations formed at this time was a group, led by Henry Joy and Carl Fisher, dedicated to the development of a national, coast to coast, highway. The group finally decided on a name for their project, and thus themselves, the Lincoln Highway and the Lincoln Highway Association. Politicians, aware of public opinion, added their voices in support of the building of new highways and roads for the automobile.

Interestingly, Nevada politicians became leaders in the struggle for improved highways. As early as 1895, Nevada's Governor, R.K. Colcord, urged the state legislature to enact a program of highway improvements. However, the idea fell a deaf ears for 15 years. In 1910 Governor Tasker Oddie emphasized the automobile's continuing and expanding presence in the state when he conducted his election campaign from a car touring across Nevada.<sup>2</sup> Oddie won the election. In his inaugural address he berated the Nevada road system and suggested that the state was losing significant amounts of tourist income because of its poor highways. The message was well received this time and the state legislature adopted a law authorizing use of convict labor to build roads with an appropriation of \$20,000. Use of convict labor proved ineffective and soon that aspect of the program was dropped in favor of using "regular" workers. The next year the state legislature established a Nevada State Highway to run from a point east of Ely on the Nevada-Utah state line west through Eureka, Austin, Fallon and on into Reno and Carson City, before crossing into California. This route approximately parallels modern United States Highway 50. The legislature could not find the funds to construct the road and instead passed further legislation which allowed the counties on the highway to sell bonds to pay for the construction and undertake the work themselves. The counties also lacked the necessary funds to carry out the program and as result the Nevada State Highway remained a paper road only in 1912 and 1913.<sup>3</sup>

As Governor Oddie and the Nevada Legislature struggled with financing plans for highway improvements in the Silver State, the Lincoln Highway Association devoted its time to developing routes and looking for funding sources. The highway association understood from the beginning that what they envisioned was beyond the scope and capabilities of the individual states, counties, or cities along most of the routes they were considering. As a result, Association members were being recruited who could contribute monies of their own, or from their companies, or were well connected to other potential donors. In 1913 the supporters of the Lincoln Highway worked on perfecting the route, as well as the financial issues. In 1913 a group of Indianapolis businessmen and motor enthusiasts, the Hoosier Motor Club, contemplated their annual trip and decided that they would make an extended tour to the Pacific Coast. This expedition is mentioned here because of two factors. The first is that the club members persuaded Carl Fisher, then vice president of the Lincoln Highway Association to sponsor their trip. The second factor, more closely related to the subject if this study, is that the trip eventually crossed Nevada from the Ely area west to the Reno area before it went on to California. News of the trip caught the attention of communities and automobile enthusiasts along its entire route, including Ely businessman Gael S. Hoag. Hoag was already deeply involved in the Nevada good roads movement and a frequent adviser to the Governor about highway matters.4 Even before the motor club group reached Nevada, Hoag and others met them in western Utah and escorted them into Ely following a road that would later become

part of the Lincoln Highway, and connect to the highway that is the subject of this study. Equally, Hoag would go on to be a staunch supporter and eventually an officer of the Lincoln Highway Association. During the 1913 trip, Governor Oddie met the entourage in Ely and accompanied it across the rest state, pointing out scenic highlights, towns, and potential lay over points for tourists along the way. The warm reception the group received in Nevada no doubt heartened Fisher and others about Nevada's enthusiasm for a transcontinental highway.<sup>5</sup>

Over the summer of 1913 rumors abounded regarding the route or routes of the Lincoln Highway. Association officials continued to maintain that the route was going to be the most practical available and their decisions would focus on the needs of through traffic and the road builders rather than on the wishes of various cities, towns and communities along the potential route. The Lincoln Highway Association decided that they would present their route at the National Conference of Governors meetings held in Colorado Springs, Colorado, during August, 1913. The route that the Association presented to the Governors entered Nevada northeast of Ely, proceeded through Ely and then went west through the Robinson Mining District, over Robinson Summit and on to Eureka, Austin, Fallon and then west. This route included nearly all of the original Nevada State Highway mentioned above. On the Utah side of the state line the route went generally west and then southwest from Salt Lake City crossing Tooele County, and through the

community of Ibapah. According to Lincoln Highway officials, this route minimized the crossing of the Great Salt Lake Desert and its associated mud flats.<sup>6</sup> Nevada responded with a gubernatorial proclamation and an official dedication in October of that year.<sup>7</sup> Nevada, and many other states, found it much easier to proclaim a highway then to build it. In 1913 Nevada state expenditures for the Highway amounted to \$25,000. The next year the state provided no additional funding.<sup>8</sup>

The Lincoln Highway Association recognized that many states would be hard pressed to fund such an ambitious project as the Lincoln Highway. Through their private fund-raising efforts the Association had considerable funds at their disposal and used them to leverage monies from states along the route, including Nevada and neighboring Utah. Their monies not only helped support highway construction but also engineering and other activities associated with the development of the Highway. Unfortunately, some of the monies could not be immediately spent because of restrictions in state law about accepting contributions from private organizations. In Utah the Association encountered other obstacles and began studying possible ways to improve the route, especially across the desert. The final routing was not agreed to until 1918.9

During the five years that elapsed between the route announcement and the final agreements in Utah a number of changes took place on the American highway scene, including passage of the first Federal Highway Act in 1916. This law provided for

federal matching funds to states to support road building, if the individual states established highway commissions and departments to direct and manage the programs. The Nevada Legislature responded in 1917 and established the Nevada Highway Department and an appointed a three-member Highway Commission to oversee the new Department. On one hand this was a godsend for Nevada in terms of funding. However, at the same time the new Commission acted to highlight the sectional problems in the state regarding highways that had been developing since the announcement of the Lincoln Highway route. Emmet Boyle, elected to the Nevada Governor's chair in 1915, found himself besieged with advice and pleas from various parts of the state. The callers and correspondents all sought to influence his appointments to the new commission, and, in turn hoped to use the appointments to influence where the highway monies would be spent. The Governor's correspondence files for 1916, and especially 1917 are filled with letters of recommendation, letters of interest letters of endorsement and other statements supporting one candidate or another for the Commission. The Governor espoused a policy of no favoritism; seeking candidates that would represent the needs of the entire state, rather than a particular section or interest group.<sup>10</sup>

It was during this period that the Overland Highway (Overland Trail Highway)

Association became extremely active politically in Nevada. The Overland group
represented the towns and merchants along the Southern Pacific (old Central Pacific)

Railroad, including Elko, Wells, Winnemucca, and Lovelock. They hoped that the state, through the new Highway Commission, would select a northern route as the primary recipient of federal aid in Nevada. The Lincoln Highway/central route supporters were equally hopeful that they could influence the Governor's appointments to the new commission. Letters arrived at the Governor's office from the Elv Chamber of Commerce, businesses and individuals in Ely and other communities, representatives of Fallon, Reno and elsewhere. While many different individuals were named as potential commissioners, the tone and underlying thrust of most of the letters had a commonality in stressing the importance of the Lincoln Highway and for the Governor not to be swayed by the arguments of the Overland group. Finally, the Tonopah-Goldfield-Rhyolite area also out forth arguments as to why it was important to Governor recognized needs of their section and the Midland Trail in his deliberations regarding appointments to the commission. The Midland Trail was another of the privately sponsored highways being developed during the 1910's. In Nevada this route went southwest from Ely to Tonopah. Goldfield, and then west into California before turning south to reach Los Angeles. 11 Thus, Governor Boyle faced a very divisive and complicated situation in 1917. It must be remembered that at the same time Boyle was being bombarded about the new Highway Commission, the United States was also preparing to take an active role in World War 1 on the side of the Allies.

Eventually, in April of 1917 the Governor appointed three members and the Nevada Highway Commission was successfully formed. The initial members included: James M. Leonard, George K. Elder and W.B. Alexander. Among the first duties facing the new panel was the question of highway designations. The new Commission set about establishing the routes in Nevada to be designated state highways (see attached map). The panel's designated highways included both Overland route and the Lincoln Highway, as well as routes into the southern portion of Nevada. Thus, the commission did what it could to satisfy the various parts of the state about highway building. However, Nevadans could do nothing about the political situation in Utah.

When the Lincoln Highway Association announced the Highway's route in 1913 the Governor of Utah, William Spry, suggested one small route change that would bring the Highway through Ogden and Salt Lake City. The then Governor endorsed the route west from Salt Lake City, going so far as to send a telegram to the Association in September 1913 the said:

In view of both decision announced at Colorado Springs that Lincoln highway will not be constructed via Price, I urge the building of the Highway through Utah via Echo and Weber Canyons, Ogden, Salt Lake City, Tooele and Ibapah, and will be glad to cooperate so far as possible to that end.<sup>13</sup>

With this endorsement and Governor Oddie's proclamation in Nevada it appeared that the route of the Highway had been set. Utah, like Nevada, had very limited funds for road building. By 1918 the original route in Utah was ready for improvements, including the Goodyear Cutoff to shorten the route and build a more permanent roadway across the Salt Lake desert. In that year Utah's new Governor, William Bamberger remained supportive of the Lincoln Highway route and through its Highway Commission the state negotiated a contract with the Lincoln Highway Association to build the cutoff.<sup>14</sup>

Even as the negotiations were going on to improve the Lincoln Highway an under current of opposition was developing in Salt Lake City to the existing route plan. Salt Lake City businessman, apparently influenced by northern California interests, began to publicize a possible highway that would run west from Salt Lake City to Wendover on the Nevada-Utah state line and then continue west across the northern portions of Nevada. The line favored by these individuals was very similar to the one that had been touted in Nevada by the Overland Trail Association. Equally, others in Utah publically opposed the

Lincoln Highway and began efforts to build a route that continued south from Salt Lake City through Utah before turning west to connect with southern California. This route was called variously the Arrowhead Trail and the Pikes Peak Ocean to Ocean Highway. On the other hand, Utah interests opposed the Lincoln Highway via Ely, Nevada, because from Ely the tourists could take the Midland Trail southwest to southern California,

spending their money in Nevada rather than Utah. Clearly, self-interest motivated the Utah merchants and businessmen in this effort. They felt that the longer the tourist could be kept in Utah the more money that would be spent in the state. Among those who sought to weaken the Lincoln Highway's position was none another than William Spry who had earlier endorsed the road. By 1918 the winds of change were beginning to sweep across the western highway scene and before the situation settled the winds became a whirlwind of interstate controversy.

Even though opposition to further construction of the Lincoln Highway in Utah began to coalesce, the state of Utah proceeded to honor its contract with Lincoln Highway Association and construction began on the Goodyear Cutoff, so-called because of the generous contribution to the effort by the Goodyear Tire and Rubber Company. Others referred to this piece of the road as the Seiblering Section, named for Frank Seiberling, a director and later president of the Lincoln Highway Association. One of the reasons that construction got underway on the cutoff was a change in the Utah Governor's office when Simon Bamberger replaced Spry. Through 1918 and into 1919 Utah continued to work on the cutoff. Even though the target completion date of July 1,1919 came and went before the new road was opened, the Lincoln Highway Association felt that Utah was making significant progress and that funding should continue. However, during an inspection of the project by Nevada Lincoln Highway consul Gael Hoag in September of

that year, it was discovered that work had been suspended and the construction equipment had returned to Salt Lake City. Lincoln Highway officials wrote to Governor Bamberger inquiring about the work stoppage. After a brief delay, the Governor responded by saying that the state was out of money for the project and at the construction equipment needed heavy repairs. The work stoppage on the Goodyear Cutoff marked the beginning of a protracted struggle between supporters of the Lincoln Highway and the other routes as well as between Nevada, California and Utah and factions within each state.

The stalemate with Utah continued as the unfinished Goodyear Cutoff fell into disrepair. Salt Lake City interests refused to talk about finishing the highway and continued to clamor for the route west to Wendover. As a result, Ely merchants and businessmen tried to take matters into their own hands and staged a boycott of all Salt Lake City businesses. Ely merchants convinced the Nevada Consolidated Copper Company to join the boycott. Even though the boycott did not achieve its desired goal, it did get the attention of the Utah capital. Salt Lake City officials and business leaders traveled to Ely to try to end the dispute. It must be remembered that in 1919 and 1920 the copper mines of the Robinson Mining District, immediately west of Ely, employed hundreds of miners and created jobs for thousands of other workers. Traditionally, Ely had been closely connected commercially with Salt Lake City as the vast majority of the Ely trade went to Utah. The boycott ended without a resolution to the matter of Ely and its desire to see the Lincoln

Highway completed.<sup>17</sup> In other parts of the Silver State, supporters of the Lincoln Highway bombarded the Governor's office with demands that pressure be brought on Utah to get on with the construction project.<sup>18</sup>

By 1920 and 1921 no resolution had been found to the stalemate in Utah and events were taking place elsewhere that would further complicate the situation. A new player emerged on the scene, the Victory Highway Association, which absorbed the Overland Trail group and supported construction of the Wendover route. Interestingly, the organizational meeting of the new association took place at Elko, Nevada, one of the communities most likely to benefit from the northern route across Nevada. 19 Also, at this time Congress was debating amendments to the original (1916) Federal highway act. Among the provisions of the amendment bill was one to increase level of federal funding for public land states that suffered from a small tax base due to federal ownership of lands. Obviously, should the new bill become law the stakes would be that much higher for the various highway groups in the western states, including the Lincoln Highway Association. Through the quirks of congressional appointments long-time Nevada politician and former Governor Oddie was a member of the Senate committee working on the new highway bill. His correspondence files are full of letters from his constituency urging him to support the Phipps bill and make it as generous as possible for the public

land states, of which Nevada was one of the leaders. Also, Nevada's other Senator, Key Pittman was encouraged to support the bill and he reassured the Silver State of his keen interest in the measure. Generally, the bill also provided for increased funding in all states and the creation of a true Federal highway system.<sup>20</sup>

Thus, during the early years of the 1920's the debate continued as to which route would be designated as the primary federal highway from Salt Lake City to California. Proponents of both sides continued to argue their case in the press, in front of various governors, highway commissions, and state legislatures. As the debate continued the role of San Francisco and other northern California communities became more obvious. They feared that any route out of Salt Lake City that did not go directly west would make it too easy for tourists to divert southwest toward southern California and that many of the auto travelers might never reach northern California.<sup>21</sup> However, in Nevada there were clearly mixed feelings regarding which road should become the predominant route across the state. Even with San Francisco lobbying, Nevadans looked at alternatives that would be in their best interest, both in the potential number of travelers and costs of construction. The Nevada Highway Commission saw to it that work proceeded with improvements to the Lincoln Highway including a new highway built from Ely to Keystone and from there to Robinson Summit in 1921. During 1922 contracts were let to improve the road from Robinson Summit to Pancake Summit. 1923 witnessed improvements to the highway

from Pancake Summit west to Eureka and from Eureka on to Hay Ranch. An equally aggressive program had been developed in Nevada for future improvements to the Lincoln Highway.<sup>22</sup> Clearly, the Silver State viewed the Lincoln Highway as its primary highway in 1921 and 1922. Even with Nevada's position clearly stated in actions as well as words, no resolution to highway stalemate was forthcoming from Utah.

Supporters of the Lincoln Highway continued to bring all pressures they possibly could to bear on the decision-makers in an attempt to force completion of the road across Utah. Even so, the commonality of interests of Salt Lake City and San Francisco, as well as areas around those cities, kept Seiberling and the Lincoln Highway Association at arm's length. In 1921 Utah improved 40 miles of the Victory Highway road west to Wendover and allowed the Lincoln route to fall into further disrepair. Mother nature seemed to the favor the Lincoln route in 1922 when heavy spring of runoff effectively destroyed the Victory road across the Salt Lake Desert. However, 17 miles of the Lincoln route also were washed away in the flooding. Despite these conditions, the state of Utah selected the Victory Highway between Salt Lake City and Wendover as its official Federal highway, and thus that route became the recipient of government aid.<sup>23</sup> The Lincoln Highway Association may have suspected such an outcome and decided to take their case to the highest authority available, the United States Secretary of Agriculture, Henry C. Wallace. In 1910's and 1920's the Bureau of Public Roads reported to the Secretary and was part of the Department of Agriculture. The Utah decision led to both rejoicing in the

northern part of the Silver State and anger and other parts of Nevada. Many Nevadans joined with the Lincoln Highway Association for the last battle.

The Lincoln Highway Association convinced Secretary Wallace to hear arguments from both sides regarding the routing issue. In preparation for the Secretarial hearings, Lincoln supporters prepared a book-length study, A Brief for the Lincoln Highway in Utah and Nevada, filled with statistics, engineering reports, cost estimates and other information in attempt to sway the Secretary. The day set for the hearing, May 14, 1923, witnessed nearly 100 individuals descending on the Department of Agriculture to present their case. High-ranking officials of the Lincoln Highway Association, including Field Secretary Gael Hoag of Nevada, led the official delegation of the Lincoln route. The Victory Highway route arguments were presented by Utah Governor Charles Maybey, ex-Governor Spry and employees of the Utah Highway Commission. The hearings lasted all day as both sides made their cases. Wallace listened intently and poured over the written materials presented to him. At the end of the day no decision was reached. Instead Wallace informed everyone present that he would consider the matter and offer his opinion within a few weeks. On June 6, 1923 the long-awaited word from Washington came out - - Secretary Wallace endorsed the Wendover/Victory Highway and in so doing relegated the Lincoln Highway in Nevada to a secondary position and in Utah to abandonment.24

In an effort to placate Nevada, Lincoln Highway interests and the Lincoln Highway Association began to circulate a plan for a connection from Ely to Wendover. As discussion continued about the Ely-Wendover route, construction moved ahead in Utah on the Wendover Cutoff which officially opened during June, 1925. On the Nevada side of the state line the road west from Wendover continued to be marginal at best. Nevada was pouring its federal highway money into the Victory Highway, but the task in front of Nevada was tremendous. The Lincoln Highway Association continued to struggle with Utah officials to maintain the old Lincoln route southwest out of Salt Lake City. However, as can be imagined, every available road dollar in Utah was devoted to the Wendover Cutoff of the Victory Highway. The situation along the Lincoln Highway continued to deteriorate despite the efforts of volunteer workers to keep the road open. With the opening of the Wendover Cutoff in 1925, the Lincoln Highway Association had no choice but to recognize the new route and designate it as the official route of the Lincoln Highway west from Salt Lake City.<sup>25</sup> However, at Wendover, as described by one historian of the Lincoln Highway, "the Lincoln Highway Association held ground and would go no further [sic] with the Victory Highway. So at Wendover the gap was opened."26

For the next five years (1925-1930) efforts were undertaken by the Lincoln Highway Association, Ely boosters, and others to build a highway south from Wendover to a

junction with the old Lincoln Highway route at Schellbourne, north of McGill. Funding for the new road competed with other road projects in Nevada, such as Highway 93 that would connect Wells on the Victory Highway with southern Idaho.<sup>27</sup> In 1927 promoters of the connecting route between Ely and Wendover finally gathered enough support that monies were appropriated to construct approximately 52 miles of road from Wendover south to the old Lincoln Highway.<sup>28</sup> At approximately the same time the state of Utah dropped the western portion of the Lincoln Highway from the Utah state highway system.<sup>29</sup> The Nevada Highway Department conducted final route surveys during the fall of 1927 and in January 1928 the Dodge Brothers Construction Company received the contract to build the road. Construction began soon after the final papers were signed. The road took slightly over two years to complete (17 April 1930) and to celebrate the event Ely businessmen planned a Lincoln Highway Days Festival for the first weekend of June. The celebration included Nevada Governor Fred Balzar, Walter "Death Valley Scotty" Scott, Gael Hoag (then the Secretary of the Lincoln Highway Association) and Will Rogers among others. Thus, with much fanfare the last leg of Lincoln Highway opened.30

Interestingly, other changes were taking place at the national level that essentially made the Lincoln Highway Association and many of its functions obsolete. In 1925 with passage of more Federal highway legislation a plan was also put forward to eliminate

named highways and substitute numbers. During the summer and into the fall of 1925 highway commissions, highway engineers and Federal officials worked on plans for the numbering system. In November of 1925 the plan was approved by the Bureau of Public Roads. In addition to the use of numbers instead of names for highways, a plan was adopted for standardized signage across the nation. As part of the plan all named highway markers were to be removed to avoid confusion. By 1927 and 1928 the standard federal shield highway markers quickly replaced the older Lincoln, Victory, Ocean to Ocean and other highway signs. This sign replacement program seems symbolic of the condition of the Lincoln Highway Association at the same time. The Association was losing members and had no longer dealt with important issues. As a result, in 1927 the Association's Board of Directors decided that as of December 31st of that year it would cease active operations. In 1928, as the Ely to Wendover highway was under construction the Lincoln Highway Association made its closing statement to the public. Under the direction of the Association's last paid employee in its Detroit office, Gael Hoag of Ely, small concrete markers were manufactured that included a bronze bust of Abraham Lincoln. On September first of 1928 Boy Scouts across the nation place the markers along the Lincoln Highway, approximately one per mile.<sup>31</sup> Thus, the portion the Highway between Wendover and Ely was in the early stages construction when the Association completed its last public work. There is no indication that similar markers were ever placed along the Wendover to Ely road.

The history of the actual road from Wendover south toward Ely officially began in 1924 when a small portion the alignment was added to the Nevada state road inventory as State Route 1, along with the route of the Victory Highway according to files held by the Nevada Department of Transportation. This designation was later changed as the Victory Highway became U. S. 40. The road was originally surfaced with a 10 feet wide strip of gravel on a graded road bed 20 feet wide at its base. In 1931, after the official opening of the Wendover to Ely connector, the highway within the current study area was widened to a 24 foot base and 20 foot wide hard surfaced roadway. Based on existing records it appears that the oldest of the still extant culverts were placed in service at the same time and only maintained, including occasional replacements, after that. In 1936 further changes to the road took place when a new wye was built at the junction with U.S. 40 in Wendover, north of the current study area. In 1942 part of the road south of the current study area was widened to a 24 foot hard surfaced highway on a 40 foot wide grade. Further work on the road was suspended during World War II. However in 1949, as traffic increased again the Nevada Highway Department contracted for shoulder improvements and re-surfacing with an average of 1.5 inches of new asphalt being added. South of the study area the surface was widened to 24 feet and the grading extended to 48 feet wide. This was the beginning of a program of widening the highway and straightening that proceeded down the highway south from Wendover during the early 1950s. The short portion included in the present study was replaced by the current

parallel highway during this time (probable abandonment date 1958). Little was done on the new road for the remainder of the 1950s and into the 1960s. In 1967 more resurfacing work was completed in and near the study area. It was during this era that U.S. 40 was replaced by Interstate 80 going east and west out of Wendover. After the interstate building was completed the Nevada Highway Department again turned his attention to improvements to other highways in the area, including U.S. Alternate 93, the moniker the highway is known by today. During the 1980s the Nevada Department of Transportation determined that other portions of the old highway needed replacement. The decision to finish the replacement work was made because that type of effort was felt to be both easier and more cost-effective than continued upgrading. In 1987 the present highway went into service and the remaining portions of the parallel route that had served for more than 50 years were abandoned.<sup>32</sup>

## II. DESCRIPTION

## A. General Description

The site under discussion in this American Engineering Record report is a small section of the Lincoln Highway located south of Wendover, Nevada in Elko County. The highway segment is 3.32 miles (17,552.25 feet) in length and is up to 48.25 feet wide. In

addition to the highway grade and road surface, there are 35 minor engineering and other features associated with the highway in the segment under discussion here. The majority of these features are small to moderate sized culverts, however, there are also two relatively small concrete bridges, three concrete sign post bases and a partially collapsed stone and concrete retaining wall. The features are described individually below.

The highway's graded roadbed is of simple construction using native soils and rock obtained from borrow ditches that parallel parts of the road. The materials generally appear to have been scraped, moved and then spread and compacted to form the graded roadbed. The height of the roadbed generally varies from approximately 1.5 feet above the native ground surface to approximately five feet high where some of the deeper ephemeral drainages have been filled and channeled through the culverts or bridges. The borrow ditches are irregular and in places are all but non-existent, possibly due to more than 40 years of abandonment and erosional activity.

The paved surface is composed of bituminous asphalt with remnants of hot tar repairs.

The asphalt layer is approximately six to eight inches thick, based on exposures in cracks.

This is consistent with the construction contract specifications mentioned above. Below the asphalt layer is a gravel base, part of which may be the remnants of the original gravel-surfaced roadway. Today, the road surface is broken, cracked and in a state of

general disrepair. Weeds are growing up through the pavement in many places.

# B. Feature Descriptions

The numbers assigned to the individual features listed in the following descriptions were arbitrarily assigned during field according and bear no particular relation to any historic designations that may have been given to the culverts, bridges and other features by the Nevada Highway Department. The feature numbers correspond to locations on the attached map (Map 1).

#### Feature 1

Feature 1 is a small concrete block located on the west side of the Lincoln

Highway about 6 m from the side of the road. This feature measures 6 x 6 in.<sup>2</sup> and

extends 7 inches above the ground surface. "N" is inscribed on the east side of the

block and a short section of metal rod extends from the center of the block.

#### Feature 2

Feature 2 is a culvert running east/west under a north/south-trending section of the Lincoln Highway. The culvert consists of a corrugated steel pipe that measures 24" in diameter. A retaining wall measuring 30" wide x 24" high, constructed of uncut local stone and concrete, surrounds the pipe.

#### Feature 3

Feature 3 is a culvert running east/west under the Lincoln Highway. The culvert consists of a corrugated steel pipe measuring 18" in diameter. A retaining wall measuring 30" wide and 24" high, constructed of uncut local stone and concrete, surrounds the pipe.

#### Feature 4

Feature 4 is a culvert running east/west under the Lincoln Highway. The culvert consists of a corrugated steel pipe measuring 18" in diameter. A retaining wall measuring 67" long x 24" high, constructed of uncut local stone and concrete, surrounds the pipe.

## Feature 5

Feature 5 is a culvert running east/west under the Lincoln Highway. The culvert consists of a corrugated steel pipe measuring 18" in diameter. A retaining wall measuring 67" long x 24" high, constructed of uncut local stone and concrete, surrounds the pipe.

#### Feature 6

Feature 6 is a culvert running east/west under the Lincoln Highway. The culvert consists of a corrugated steel pipe measuring 18" in diameter. A retaining wall

measuring 67" long x 24" high, constructed of uncut local stone and concrete, surrounds the pipe.

#### Feature 7

Feature 7 is a culvert running east/west under the Lincoln Highway. The culvert consists of a corrugated steel pipe measuring 18" in diameter. A retaining wall measuring 60" long and 22" high, constructed of uncut local stone and concrete, surrounds the pipe.

## Feature 8

Feature 8 is a small concrete block located on the west side of the Lincoln Highway. This feature measures 6 x 6 in.<sup>2</sup> and extends 7" above the ground surface. "N" is inscribed on the east side of the block and a short section of metal rod extends from the center of the block.

#### Feature 9

Feature 9 is a culvert consisting of two corrugated steel pipes measuring 29" in diameter. A concrete retaining wall measuring 102" long x 32" high surrounds the pipes.

#### Feature 10

Feature 10 is a small concrete bridge measuring 118" long x 33" high and a water

channel measuring 96" wide x 18" high. A large trash concentration is present in this feature.

### Feature 11

Feature 11 is a culvert consisting of two corrugated steel pipes measuring 24" in diameter. A concrete retaining wall measuring 105" long x 30" high surrounds the pipe.

## Feature 12

Feature 12 is a culvert consisting of two corrugated steel pipes measuring 24" in diameter. A concrete retaining wall measuring 65" long x 31" high surrounds the pipe.

### Feature 13

Feature 13 is a culvert consisting of a corrugated steel pipe measuring 24" in diameter. A concrete retaining wall measuring 65" long x 31" high surrounds the pipe.

#### Feature 14

Feature 14 is a culvert consisting of a corrugated steel pipe measuring 18" in

diameter. A concrete retaining wall measuring 69" long x 21" high surrounds the pipe.

## Feature 15

Feature 15 is a small concrete block located on the east side of the Lincoln Highway. This feature measures 6 x 6 in.<sup>2</sup> and extends 8" above the ground surface. "N" is inscribed on the west side of the block and a short section of metal rod extends from the center of the block.

## Feature 16

Feature 16 is a culvert consisting of two corrugated steel pipes measuring 18" in diameter. A concrete retaining wall measuring 80" long x 24" high surrounds the pipe.

#### Feature 17

Feature 17 is a culvert consisting of a corrugated steel pipe measuring 18" in diameter. A concrete retaining wall measuring 80" long x 24" high surrounds the pipe.

#### Feature 18

Feature 18 is a culvert consisting of a corrugated steel pipe measuring 18" in

diameter. A concrete retaining wall measuring 56" long x 24" high surrounds the pipe.

#### Feature 19

Feature 19 is a culvert consisting of two corrugated steel pipes measuring 24" in diameter. A concrete retaining wall measuring 112" long x 30" high surrounds the pipe.

## Feature 20

Feature 20 is a culvert consisting of a corrugated steel pipe measuring 30" in diameter. A concrete retaining wall measuring 74" long x 37" high surrounds the pipe.

## Feature 21

Feature 21 is a culvert consisting of a corrugated steel pipe measuring 18" in diameter. A concrete retaining wall measuring 65" long x 23" high surrounds the pipe.

## Feature 22

Feature 22 is a culvert consisting of two corrugated steel pipes measuring 24" in

diameter. A concrete retaining wall measuring 112" long x 36" high surrounds the pipes.

## Feature 23

Feature 23 is a culvert consisting of a corrugated steel pipe measuring 18" in diameter. A concrete retaining wall measuring 65" long x 25" high surrounds the pipe.

## Feature 24

Feature 24 is a culvert consisting of a corrugated steel pipe measuring 18" in diameter. A concrete retaining wall measuring 65" long x 24" high surrounds the pipe.

# Feature 25

Feature 25 is a culvert consisting of a corrugated steel pipe measuring 44" in diameter. A concrete retaining wall measuring 68" long x 32" high surrounds the pipe.

#### Feature 26

Feature 26 is a culvert consisting of a corrugated steel pipe measuring 30" in

diameter. A concrete retaining wall measuring 36" long x 36" high surrounds the pipe.

## Feature 27

Feature 27 is a culvert consisting of a corrugated steel pipe. A concrete retaining wall measuring 58" long x 32" high surrounds the pipe.

## Feature 28

Feature 28 is a section of collapsed retaining wall, measuring 75 feet long x 2 feet high, located on the east side of the Lincoln Highway. The wall is constructed of local uncut stone and concrete.

## Feature 29

Feature 29 is a culvert consisting of two corrugated steel pipes measuring 24" in diameter. A concrete retaining wall measuring 110' long x 39" high surrounds the pipe.

## Feature 30

Feature 30 is a culvert consisting of two corrugated steel pipes measuring 18" in diameter. A concrete retaining wall measuring 106" long x 24" high surrounds the

pipe.

## Feature 31

Feature 31 is a culvert consisting of a corrugated steel pipe, measuring 38" in diameter. A concrete retaining wall measuring 125" long x 46" high surrounds the pipe.

## Feature 32

Feature 32 is a culvert consisting of a corrugated steel pipe, measuring 18" in diameter. A concrete retaining wall measuring 70" long x 25" high surrounds the pipe.

# Feature 33

Feature 33 is a culvert consisting of two corrugated steel pipes measuring 24" in diameter. A concrete retaining wall measuring 110" long x 36" high surrounds the pipe.

## Feature 34

Feature 34 is a large concrete bridge, measuring 160 long, 42' wide and 4' high. A water channel under the bridge measures 72" wide x 24" high.

#### Feature 35

Feature 35 is a culvert consisting of a corrugated steel pipe. A concrete retaining wall measuring 66" long x 33" high surrounds the pipe.

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- 20. See for example: Charles S. Knight to K. Pittman 30 April 1921, Box 104, Key Pittman Papers, Library of Congress, Washington, D.C.
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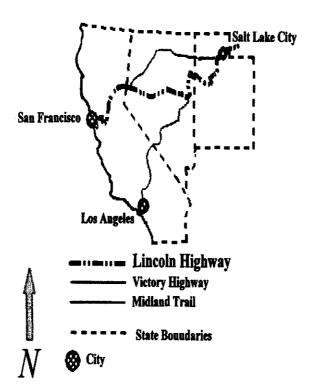
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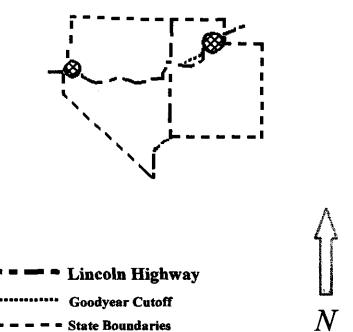
MAP 1 - ROUTE OF THE ABANDONED LINCOLN HIGHWAY IN THE WENDOVER AREA *I-80* Business-80 CONTOUR INTERVAL APPROX. 6M DATUM LINEAR SITE BOUNDARY/ROAD FEATURE CULVERT 19 ARTIFACT SECTION LINES 36 32

# MAP 2 - ROUTE OF LINCOLN HIGHWAY AND MIDLAND TRAIL, CA. 1920-25

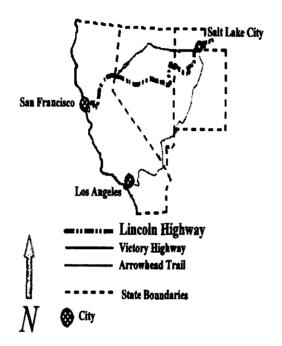


# MAP 3 - ROUTE OF LINCOLN HIGHWAY AND GOODYEAR CUT-OFF, CA. 1920

City



MAP 4 - ROUTE OF LINCOLN HIGHWAY, VICTORY HIGHWAY AND ARROWHEAD TRAIL, CA. 1920-25



MAP 5 - ROUTE OF LINCOLN HIGHWAY SHOWING RENUMBERING, CA. 1925

